

Best Practices for Protecting the Watershed

Activity	Do's and Don't's	Why?
<p>Site Disturbance</p>	<p>Do keep site disturbance to a minimum, especially removal of natural vegetation and exposure of bare soil. Seed and mulch bare soil within two weeks of clearing and install hay bales down slope of cleared areas.</p> <p>Do leave naturally vegetated areas (buffer strips) along lake shores, stream beds, road ditches, intermittent streams. An undisturbed buffer width of 100 feet is suggested, with more on steep slopes or erodible soils such as fine silts or clays.</p>	<p>Site disturbance dramatically increases surface runoff and erosion which contributes phosphorus to lakes. Hay bales trap sediments and the phosphorus they carry.</p> <p>Buffer strips intercept runoff filtering sediment and phosphorus from water before it reaches the lake or stream.</p>
<p>Landscaping</p>	<p>Do plant deep rooted, woody, native vegetation along lake shores, stream beds and road ditches.</p> <p>Do preserve natural topography (lay of the land) and drainage systems.</p> <p>Do use fertilizer sparingly. Avoid large single doses. Hay mulch is preferable. Consult with Penn State Cooperative Extension Service.</p>	<p>Plant roots stabilize the shore-line, prevent erosion and take up nutrients carried by water before they reach the lake.</p> <p>Natural drainage systems evolve over years and effectively control sediment and phosphorus.</p> <p>Solid, inorganic fertilizers are readily dissolved by water and transported in runoff.</p>
<p>Yardwork</p>	<p>Don't use herbicides and pesticides in excess on your garden and lawn. Avoid their use if possible.</p> <p>Don't put leaves, branches or any kind of organic matter into the lake.</p>	<p>Many of these products are toxic to fish and wildlife and can get into the water</p> <p>Plant debris adds phosphorus and other nutrients directly to the lake.</p>

<p>Shoreline Changes</p>	<p>Do leave existing rocks in place along the shore. Plant vegetation for erosion control or use rip rap as a last resort.</p> <p>Do minimize shoreline alteration, such as removal of vegetation, construction of piers, breakwaters, etc. (DEP permit required for shoreline alterations and work beyond mean water level. MCCD approval may be required as well).</p>	<p>Large rocks are the most effective buffer against erosion because they diffuse wave action.</p> <p>Shorelines are generally stable due to years of wind, wave and ice action. Alteration of the natural shoreline destabilizes the shoreline, increases erosion and impairs fish and wildlife habitat. Vegetation offers critical shade that keeps stream and shallow lake water cooler.</p>
<p>Tree Cutting, Forestry</p>	<p>Do leave trees and shrubs along the shoreline or stream bank. Consult with DEP or MCCD for vegetative cutting restrictions.</p> <p>Do leave ground cover plants and natural forest litter intact.</p> <p>Don't manicure the ground underneath larger trees</p>	<p>Trees and natural cover best protect against shoreline erosion and sedimentation of lakes</p> <p>An intricate system of live roots is the net that solidly holds the shoreline together.</p> <p>Shading of stream beds and near-shore waters promotes cool and stable temperatures important to fish and aquatic life during the summer.</p>
<p>Detergent Use</p>	<p>Do use non-phosphate detergents (check the labels).</p> <p>Don't wash anything in the lake (e.g. dishes, your dog, yourself) with soap or a cleaning agent, and don't wash cars or boats near lakes, streams or drainage ditches.</p>	<p>Phosphate detergents add more phosphorus to the lake, contributing to algal growth.</p> <p>These activities will put phosphorus directly into the water. Runoff should be diverted to vegetated areas and allowed to seep into the ground where phosphorus can be removed.</p>

<p>Septic System Use and Maintenance</p>	<p>Do check sludge level in septic tank every year. Pump when sludge fills half of the tank (average is every 2 - 3 years for year-round residents, 5 - 6 years for seasonal residents).</p> <p>Do organize neighborhood septic tank pumping.</p> <p>Do conserve water.</p> <p>Don't flush strong cleaning agents (drain cleaner, bleach) into your septic system.</p> <p>Don't use your toilet as a wastebasket.</p> <p>Don't install or use an in-sink garbage disposal.</p> <p>Don't use commercial products that claim to clean your septic tank without pumping.</p>	<p>Septic systems must be maintained if they are to function properly. If settled solids are not removed from the tank they will wash into and clog the leach field.</p> <p>Pumpers usually charge less for large volume jobs.</p> <p>Your septic tank will work better with less water.</p> <p>Septic tanks are living systems. Strong cleaners kill the microorganisms that break down waste.</p> <p>Trash fills up the septic tank quickly and cannot be broken down by microorganisms.</p> <p>Kitchen garbage overburdens your septic tank and slows its functions.</p> <p>These products can cause clogging of your leach field and may contain chemicals which can contaminate drinking and lake water.</p>
<p>Runoff Management</p>	<p>Do prevent driveway, roof, lawn, etc. water from running directly into lakes and streams. Detain in depressions or divert flow to flat, wooded areas.</p>	<p>Flowing water carries phosphorus-laden sediment. Dispersing water allows it to filter into the soil where sediment and phosphorus are filtered out.</p>
<p>Road Management</p>	<p>Do plant vegetative buffer strips along roads and stabilize road ditches by seeding or riprapping. Use natural vegetation whenever possible.</p> <p>Don't allow water to run directly off roads into lakes or streams.</p>	<p>Plants slow runoff from the roads and help to remove sediment and phosphorus before they reach lakes or streams.</p> <p>Water running off roads contains sediment, phosphorus and pollutants from cars.</p>

<p>Construction</p>	<p>Don't build houses, decks, sheds or other structures close to the water. A permit is required to build within 50 feet of a stream.</p>	<p>Setbacks protect the lake because shoreline disturbance dramatically increases sedimentation in the lake.</p>
<p>Filling, Dredging</p>	<p>Don't fill or dredge along the lake shore unless necessary. Both activities are regulated by the DEP, and may require a permit and approval by the County Conservation District</p>	<p>Sand contains phosphorus. Sand which is not stabilized by vegetation washes into the lake where it accelerates filling of the lake and proves poor bottom habitat for fish and wildlife.</p>
<p>Hazardous Materials Management</p>	<p>Don't build new beaches (placing sand in the lake requires a permit from DEP).</p> <p>Do store hazardous materials in a contained area</p> <p>Don't dispose of oil, paint thinner or chemical products on the ground.</p>	<p>Filling and dredging stir up sediment and impair natural habitat</p> <p>Containment prevents contamination of water supplies and lake waters by undetected leaks.</p> <p>These products cannot be removed by soil and can contaminate ground water and lake water.</p>